

I. Listing of Claims

1. (Currently Amended) A retractor for a seat belt system for a vehicle comprising:

a spindle on which a webbing is wound;

a frame for pivotally holding the spindle;

a ~~system~~ spindle locking system means for preventing the webbing from drawing ~~such that, out and for~~ stopping ~~[[a]]~~ rotation of the spindle rotating in a webbing drawing out direction~~[[,]]~~ when a rotational acceleration of the spindle is ~~not less~~ greater than a first predetermined value when the webbing is accelerated in the drawing out direction; and

the spindle locking means further for stopping ~~[[a]]~~ rotation of the spindle rotating in the drawing out direction when a deceleration of the vehicle is ~~not less~~ greater than a second predetermined value; ~~and~~

a first torque generating system which generates torque to rotate the spindle in a winding direction in which the webbing is wound, ~~and~~ the first torque generating system being connected to the spindle at all times so as to transmit the generated torque to the spindle;

a second torque generating system which generates torque to rotate the spindle in the winding direction; and

a torque transmitting mechanism system which transmits the torque generated by the second torque generating system to the spindle,

wherein the torque generated by the first torque generating system is made to be lower than the torque generated by the second torque generating system when the

torques generated by the first and second torque generating systems are each transmitted to the spindle, so as to maintain a rotary speed of the spindle generated by the first torque generating system to be lower than a rotary speed of the spindle generated by the second torque generating system, and
wherein the second torque generating system is used repeatedly.

2. (Currently Amended) The retractor for the seat belt according to claim 1, wherein the first torque generating system generates torque by a rotary spring force of a spiral spring, and
the second torque generating system generates torque by torque of an electric motor.

3. (Currently Amended) The retractor for the seat belt according to claim 1, wherein when the second torque generating system generates the torque for rotating the spindle in the winding direction, the torque transmitting mechanism system transmits the torque generated by the second torque generating system to the spindle, and
when the second torque generating system generates the a second torque for rotating the spindle in a direction opposite to the direction in which the second torque generating system generates torque for rotating the spindle in the winding the drawing out direction, the torque transmitting mechanism system does not transmit the second torque generated by the second torque generating system to the spindle.

4. (Currently Amended) The retractor for the seat belt according to claim 1,

wherein ~~a torque setting is made in advance in the first torque generating system~~ has a preset torque setting so that a predetermined tension is generated in the webbing when a seat belt user fastens the seat belt.

5. (Currently Amended) The retractor for the seat belt according to claim 1, wherein the torque transmitting mechanism system includes a torque transmission cushioning system for cushioning a torque transmission by an elastic member arranged between the second torque generating system and the spindle,

wherein when the torque of the second torque generating system is transmitted to the spindle, a sudden change in the torque of the second torque generating system is not transmitted to the spindle as a sudden change in torque, and

wherein when the torque of the second torque generating system is transmitted to the spindle, a sudden force given to the spindle in ~~a direction of the~~ drawing out direction ~~the webbing given to the spindle, which is generated when a seat belt user gives a sudden force to the webbing in the drawing out direction,~~ is not transmitted to the second torque generating system as a sudden change in force.

6. (Currently Amended) The retractor for the seat belt according to claim 5, wherein an elastic force of the elastic member in the power transmission cushioning system is larger than the force generated by the first torque generating system when the elastic member is compressed.

7. (Currently Amended) The retractor for the seat belt according to claim 1, further comprising:

a webbing action detecting system for detecting ~~whether the~~ a webbing action, the webbing action being one of ~~a is drawn~~ webbing drawing out state, the ~~a webbing is wound~~ winding state, or ~~the a webbing is in a stopping~~ stoppage state; and

a control system for controlling the torque of the second torque generating system according to~~[[:]] whether or not the~~ a seat belt fastening state is fastened and the webbing action detected by the webbing action detecting system, the seat belt fastening state being one of a fastened seat belt state or a non-fastened seat belt state; which is detected by and

a seat belt fastening detection system ~~which is integrated into a buckle, the seat belt fastening detection system being operable to detect the seat belt fastening state based on and detects~~ whether or not a tongue is engaged with the buckle, ~~and an action of the webbing detected by the webbing action detecting system.~~

8. (Currently Amended) The retractor for the seat belt according to claim 7, wherein when the seat belt fastening detecting system detects a change from ~~[[a]] the fastened seat belt state of fastening the seat belt to [[a]] the non-fastened seat belt state, of not fastening the seat belt, in a case where the state of not fastening the seat belt is detected~~ and the seat belt fastening detecting system further detects that the webbing is in ~~[[a]] the webbing~~ stoppage state, the control system makes the second torque generating system generate a predetermined intensity of the torque for rotating the spindle in the winding direction.

9. (Currently Amended) The retractor for the seat belt according to claim 7, wherein when ~~[[a]] the non-fastened seat belt state, of not fastening the seat belt and a the webbing drawing out state, of drawing out of the webbing are detected, in a case where a state of not fastening of the seat belt and [[a]] the webbing stoppage state of a stoppage of the webbing are detected, the control system controls so that makes~~ the second torque generating system generate~~[[s]]~~ a predetermined intensity of the torque for rotating the spindle in the winding direction.

10. (Currently Amended) The retractor for the seat belt according to claim 7, wherein when a non-fastened seat belt state of not fastening the seat belt and a webbing stoppage state of stoppage of the webbing are detected, and when the second torque generating system is generating torque for ~~although the torque of rotating the spindle is generated in the winding direction by an action of the second torque generating system,~~

the control system stops the generation of the torque by the second torque generating system for a predetermined period of time, and then the control system controls the second torque generating system to generate the torque~~[[,]] in [[a]] the drawing direction of which oppose to the direction of the torque for rotating the spindle in the winding direction.~~

11. (Currently Amended) The retractor for the seat belt according to claim 7, wherein when ~~the~~ a change from the non-fastened seatbelt state of not fastening to the

fastened seat belt state of fastening the seat belt is detected, the control system makes the second torque generating system generate the torque for rotating the spindle in the winding direction, and

when the webbing stoppage state of stoppage of the webbing is detected, the control system makes the second torque generating system generate torque[[,]] to rotate the spindle in [[a]] the drawing out direction of which opposes to the direction of the torque for rotating the spindle in the winding direction for a predetermined period of time.

12. (Currently Amended) The retractor for the seat belt according to claim 7, wherein the webbing action detecting system detects the webbing action by detecting a rotary speed and a rotary direction of the spindle, and

wherein when the webbing action detection system detects a change predetermined increase in amount of the rotation rotary speed of the spindle of not less than a predetermined value is detected in a predetermined period of time, and the webbing action detection system determines that the webbing is in the webbing drawing out state if the webbing action detection system further detects that a rotation of the rotary direction of the spindle is detected on a side of corresponds to the drawing out the webbing direction, and the webbing action detecting system determining determines that the webbing is drawn out in the webbing winding state if, when the webbing action detection system further detects that the rotary direction rotation of the spindle is detected on a side of corresponds to the winding the webbing direction, the webbing action detecting system determines that the webbing is wound, and

wherein when the webbing action detection system does not detect the predetermined increase in the rotary speed of the spindle a change in amount of rotation of not less than a predetermined value is not detected in [[a]] the predetermined period of time, the webbing action detection system determines that the webbing is in [[a]] the webbing stoppage state of stoppage.

13. (Currently Amended) The retractor for the seat belt according to claim 7, ~~wherein when a dangerous state in which an actual or potential collision is detected by~~ further comprising:

a collision detecting system for detecting whether or not a vehicle is in a dangerous state, which is separately provided and detects whether or not a vehicle is in a dangerous state the dangerous state being one of an actual or potential collision,

wherein when the collision detecting detects the dangerous state and the seat belt fastening detection system detects a fastened seat belt state that a user fastens the seat belt are detected, the control system makes the second torque generating system generate the torque for rotating the spindle in the winding direction.

14. (Currently Amended) The retractor for the seat belt according to claim 13, wherein when ~~the state of fastening the seat belt and the a~~ change from the dangerous state of the vehicle to ~~the a~~ not-dangerous state ~~are is~~ detected, the control system makes the second torque generating system generate the torque[[,]] for rotating the spindle in the winding direction for a predetermined period of time and at a level of

~~which is higher than a predetermined level of the torque required for rotating the spindle, in the winding direction for a predetermined period of time; and~~

~~wherein the control system also further makes the second torque generating system gradually reduce the torque with lapse of time; and after no torque is generated, such that when the second torque generating mechanism stops generating the torque, the control system controls so that makes the second torque generating mechanism generate a predetermined intensity of torque for rotating the spindle is generated in the drawing out direction for a predetermined period of time in a direction opposite to the winding direction.~~

15. (Currently Amended) The retractor for the seat belt according to claim 1, further comprising:

a control system for controlling the torque generated by the second torque generating system according to a seat belt fastening state ~~detected by~~ and a dangerous state, the seat belt fastening state being one of a fastened seat belt state or a non-fastened seat belt state;

a seat belt fastening state detecting system, ~~which is incorporated into a buckle, the seat belt fastening detection system being operable to and detect[[s]] the seat belt fastening state based on whether or not a tongue is engaged with the buckle, and according to a dangerous state detected by and;~~

a dangerous state detecting system for detecting whether or not a vehicle is in [[a]] the dangerous state.

16. (Currently Amended) The retractor for the seat belt according to claim 15, wherein when the fastened seat belt state of ~~fastening the seat belt~~ and the dangerous state of the vehicle are detected, the control system makes the second torque generating system generate the torque for rotating the spindle in the winding direction.

17. (Currently Amended) The retractor for the seat belt according to claim 15, wherein when the fasted seat belt state of ~~fastening the seat belt~~ and the a change from the dangerous state of the vehicle to the a not-dangerous state are detected, the control system makes the second torque generating system generate the torque~~[[,]]~~ at a level for rotating the spindle in the winding direction for a predetermined period of time; and ~~wherein then~~ the control system further makes the second torque generating system gradually reduce the torque with lapse of time; ~~and after no torque is generated,~~ such that when the second torque generating mechanism stops generating the torque, the control system makes the second torque generating system generate a predetermined torque for rotating the spindle in ~~a direction opposite to the winding~~ the drawing out direction for a predetermined period of time.

18. (Currently Amended) The retractor for the seat belt according to claim 13, wherein when the dangerous state of the vehicle and the a change from the fastened seat belt state of ~~fastening the seat belt~~ to the non-fastened seat belt state of ~~not-fastening the seat belt~~ are detected, the control system makes the second torque generating system generate a predetermined torque for rotating the spindle in the drawing out direction ~~opposite to the winding direction~~ for a predetermined period of

time.

19. (Currently Amended) The retractor for the seat belt as set forth in claim 8, wherein the control system makes the second torque generating system generate the torque at a level of the torque greater than a predetermined level of torque required for rotating the spindle in the winding direction generated by the second torque generating system is set to be higher than a level of torque for rotating the spindle in the winding direction generated by the second torque generating system.

20. (Currently Amended) The retractor for the seat belt according to claim 3, wherein ~~while~~ when the control system ~~controls so that~~ makes the second torque generating system generates a rotary torque in ~~[[a]]~~ the drawing out direction, ~~opposite to the direction of winding the webbing with respect to the spindle and when the webbing detecting system detects that an amount of the drawn webbing being not less drawn is greater than a predetermined value is detected by the webbing detecting system,~~ the control system ~~controls~~ makes the second torque generating system ~~[[to]]~~ increase a rotary speed.